GREEN BIOTECHNOLOGY: THE FUTURE OF PLANT DEVELOPMENT FROM HERE

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Abstract: Green Biotechnology as a category of biotechnology entails the deliberate manipulation of plants, animals or microbes to produce effective and efficient environmentally sustainable novel and desirable products.

Mankind has always had a strong relationship and connection with plants. Our fascination by them is literally a matter of life and death and even beyond that, our very existence: we depend on plants to feed, clothe ourselves, make our homes to keep us warm from the cold and predators, they make us breathable air without which our existence would have been impossible. Plants for the basis of all our development and it is no surprise that our ability to domesticate and nurture them has yielded us an exponential and unparalleled level of growth and development never experienced in our collective history as a specie up to that point [1].

Modern plant biotechnology is the offspring of traditional plant breeding that was birthed thousands ago since humans domesticated the first plants. Unlike with traditional plant breeding techniques that take decades to develop desirable plant qualities, modern plant biotechnology is more efficient, thus achieving the desired result in only a matter of a few years or even months. This area of plant biotechnology has been necessitated by over ever-increasing demands to feed the more and more humans that are born each year as well as their accompanying demand for consumption of plant-based materials. Contemporary Plant biotechnology is making fast paced advancement in vital areas as Genetic modification of plants to deliver higher nutritional values, offer greater resistance to pest and diseases or hardy stocks that can withstand extreme environmental condition such as drought, heat or cold. The first Commercially available genetically modified crop that gained license was Flav savr tomato. Nowadays there are many, ranging from Corn to Soybean and cotton among others. The Market for genetically modified crops keeps rising amid the public hysteria and is expected to continue that trajectory as more and more farmers and governments adopt such novel technologies as a potent option in tackling the challenges the future presents in the form of climate change and rising demographic growth [2].

Conclusion: Genetic engineering has provided an easier and convenient set of tools that will play an increasing role in our bid to safely feed our demographic increases and secure a safer environment for our collective well-being.

1. Black. R. et al, Case studies on the use of biotechnologies and on biosafety provisions in four African countries, 156, 4, 20(12), 370-381 (2010).
2. Birhanu F.M., Genetically Modified Organisms in Africa: Regulating a Threat or an Opportunity, 4(29) (2010).